

## Backpack Care & Cleaning

1. Brush off loose dirt with a dry brush.
2. As needed, wipe out the inside with a damp sponge and mild soap.
3. Rinse only, if possible. Use cold water and a sponge or rinse in a tub without soap.
4. Machine wash in front-loading unit (DO NOT use machine with agitator, as agitator could cause damage not covered under warranty) with cold water and mild soap (Ivory Flakes, Woolite, Sport Wash, etc.) DO NOT use detergents.
5. **DO NOT** soak in soapy water, as it may cause delamination.
6. Rinse thoroughly to eliminate soap residue.
7. Place pack on frame to air dry—air dry only.
8. Always store in a cool, dry area.

## Zipper Care

1. Keep loose threads trimmed.
2. Keep free from dirt.
3. Spray periodically with a non-greasy, non-staining silicone spray designed for fabrics.
4. To prevent salt water corrosion on zipper pulls, make sure you rinse with clear water after exposure.

## Replacement Parts

### Can I order a new belt or straps for my old Kelty pack?

Yes, we do stock older parts such as waistbelts, shoulder straps, and other hardware. We will need to know the model and year of the pack (which can be found on the tag inside the packbag), your pack's size, and also your measurements if you are ordering a waistbelt. To order, and if you have specific questions, please call us at 1-800-423-2320, and we can get you started on the road to refurbishing your backpack.

### Can I buy a new bag for my old frame?

Kelty usually doesn't recommend adding a new packbag to an old frame because they may not work together. We recommend the customer take his/her frame to the nearest dealer to determine what will work

## TFO® Reservoir Information

## TFO® Warranty

TFO warrants all OEM products to be free from defects in workmanship and materials for one year from the date of purchase by the consumer. (Normal wear is not a defect.) If you are not satisfied with the

performance of a TFO OEM product, TFO will repair or replace it under the following programs:

1. Return to Dealer or Manufacturer: If a consumer returns a TFO OEM product to the dealer or pack manufacturer, TFO will replace the product directly to the manufacturer upon the return of the defective product to TFO.
2. TFO Direct Consumer Warranty Hotline: Contact TFO directly with questions, comments, suggestions, and warranty concerns at 1.888.463.5394.

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## Cleaning

All Kelty TFO® Tankers can be cleaned the same way.

1. Clean tanker thoroughly by using warm water and, if necessary, mild soap.
2. Rinse tanker. DO NOT use abrasive cleansing pads to clean; they will compromise the performance of the tanker. If you must use a cloth for wiping, use only a soft, dry cloth.
3. Fill the tanker halfway, close the filler cap, and press on the outside of the tanker to expel clean warm water through the tube and bite valve. (Make sure the bite valve is on the "open" position.)
4. Drain and dry the tanker.

## Care Tips

1. The best way to help ensure a bacteria-free tanker is to place the tanker in the freezer between uses.
2. This TFO hydration system is equipped with anti-microbial properties. The anti-microbial treatment is intended to reduce the growth of organisms inside the tube. It DOES NOT replace the use of a filter or purifier to treat unsafe water.

Is my pack waterproof?

All Kelty packs are coated with a treatment that is highly water resistant. If you are planning a trip that will encounter severe wet weather, or you are concerned about keeping your gear absolutely dry, we recommend purchasing a Kelty rain cover.

## Rain Covers

Kelty makes two sizes of backpack rain covers: regular and large. The regular size fits packs up to 3000 cubic inches, and the large size is for our external packs or for internal packs larger than 3000 cubic inches.

### Rain covers dimensions:

The measurements are a little weird. They are sort of diamond shaped when you unfold them.

Large: 52" long x 30" wide

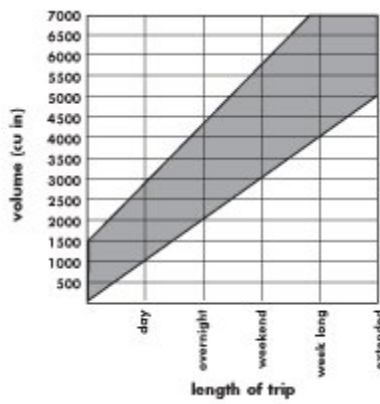
Regular: 45" long x 30" wide

Suspension Primer

[Go to Suspension Primer](#)

## Choosing a Pack size

Factors influencing pack selection include the season in which the pack will be used, the amount of gear a person typically brings (kitchen sink vs. light & fast), the length of the trip, and the environment in which the trip will take place (desert vs. high



alpine). Winter trips will require about 1000-2000 cubic inches more than a trip of the same duration taken in summer time. Many of the top-loading internal frame packs have a spindrift collar which allows the top of the pack to be extended for this very purpose.

To help choose a pack size refer to the graph below to find the recommended pack volume (cubic inches) for a given trip length.

## External vs. Internal

### External

Externals are the load warriors. These packs are designed to carry large loads for long distances over relatively well established trails without a lot of low overhanging branches or narrow passages.

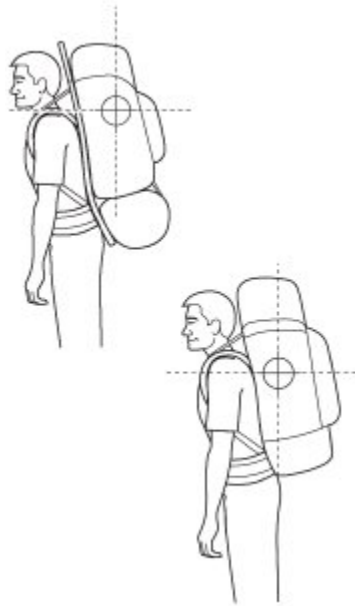
Benefits of external frames:

1. Proper loading is accomplished more easily while also carrying awkward, unbalanced loads easily.
2. More weight can be carried comfortably while allowing the wearer to walk erect.
3. Allow for increased ventilation, thereby allowing you to remain cooler.

### Internal

An internal frame pack is ideally suited for trips where balance is critical or for people who carry loads while doing activities that require independent arm movement (skiing, climbing, hiking on rough trails, etc.).

1. Benefits of internal frames:
2. Flexible suspension that can be formed to follow the contours of the spine.
3. Load rides close to the back and brings the packs center of gravity closer to the wearers' center of gravity, creating a balanced and stable load during higher speed activities.



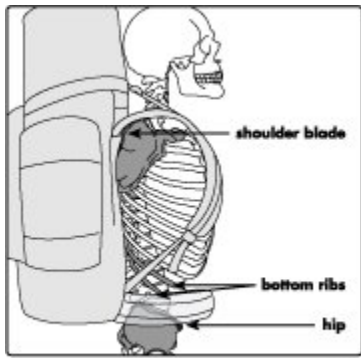
## Custom Fitting

Follow these steps **IN SEQUENCE** to achieve the best fit every time you fit a pack. Refer to individual pack instructions included with the Kelty backpack to identify pack parts or to adjust the torso length of the pack.



1. Weight the pack with at least 25 lb. (35 lb. is ideal).
2. Put the pack on and tighten the waistbelt. Make sure you place the waistbelt in the proper location (see Figures CF1 & CF2). *NOTE: It is recommended to wear the belt on hip bones, just under the rib cage. If you still prefer to wear the belt low, add one to two inches to your torso length measurement. Figure CF1 shows both the preferred placement of the waistbelt and an example of a belt worn low. The low position is NOT recommended. Once positioned correctly, tighten the belt to prevent it from sliding. (A good rule of thumb is to have the belt buckle approximately over your belly button.)*

*Benefits of wearing the belt high on the waist:*

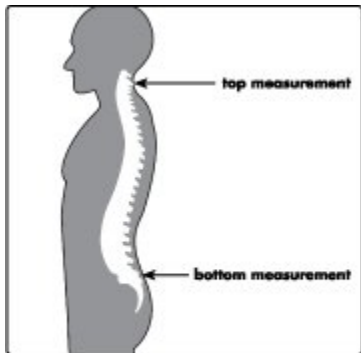


CF2



CF3

- A. *Proper loading of the skeletal frame, further supported by the two strongest muscle groups in the body: the quadriceps and gluteals.*
  - B. *Blood flow and nerves route across the front of the hips; wearing the belt too low can restrict blood flow causing muscle fatigue, nerve pinching, and possible numbness.*
3. Once the waistbelt is in the correct position, tighten the shoulder straps. To tighten shoulder straps, pull the webbing at the lower ends of the shoulder strap down and back. The pad of the shoulder strap should start one to two inches below the top of your shoulder (see Figure CF3). During this operation the load-lifter straps should be kept loose.  
*NOTE: Put a little more load on your shoulders than you want to end up with*
  4. When the waistbelt is positioned correctly, and the shoulder straps appear as shown in Figure CF3, you have achieved a perfect fit.  
*NOTE: If you do not have the correct shoulder strap position, you will need to adjust shoulder straps as directed in the "Torso Adjustment" section on the individual pack instructions. To find the instructions for your pack go to [/kelty/index.cfm?cid=417](http://kelty/index.cfm?cid=417)*
  5. Snug the load-lifter straps. This lifts the shoulder straps (and the pack's weight) off the top of your shoulders. Don't allow the load lifters to pull the shoulder straps more than 1/2" off your shoulder, or it will cause pressure points.
  6. Position the sternum strap across your chest, just below your clavical, so it doesn't interfere with your breathing. This draws together and tightens the shoulder straps so you may want to loosen them slightly.
  7. Pull the belt stabilizers just snug. If overtightening them feels good, you might need to bend more curve into the frame in the lumbar region. Overtightening causes gaps between you and the belt. (Belt stabilizers are best left loose for the first 15-30 minutes of hiking.)



TL1

### Torso Length Measurement

Your height does not determine your torso length! To measure your torso, drape a soft tape measure from the seventh vertebrae (the bony protrusion at the base of your neck) down along the contour of your spine to the low point between your hipbones. To find that point, place a hand on each hip with your thumbs pointing in. The line connecting your thumbs is what you're measuring to (see figure TL1).



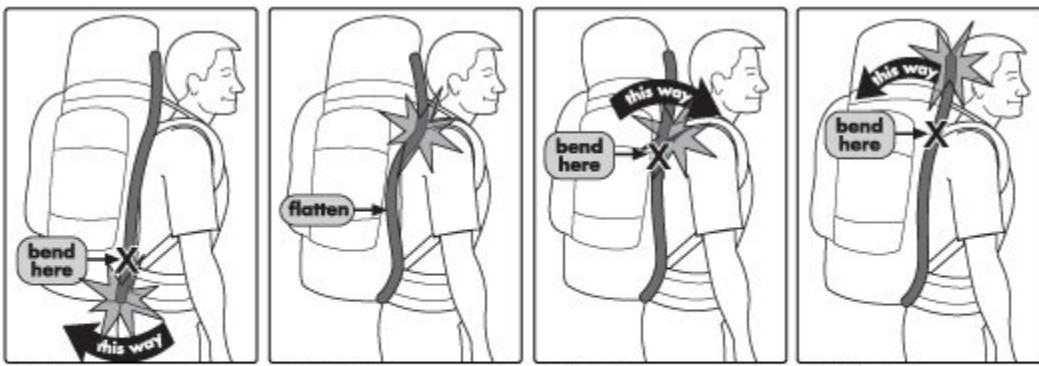
FS1

### Frame Shaping

Walk around and notice how the pack feels against your back. The pack should contour to your back, as in figure FS1. Make certain to take notice of any pressure points and troubleshoot them in the next section.

*NOTE: When you are walking with weight in the pack, the pack's shape should be exactly the same as your back's shape. We put an average curve into the frame at the factory, but some additional fine-tuning may be required.*

*HINT: Most bending of the stays can be done over the edge of a table without taking the stays out of the pack. (Bending and re-bending the stays won't hurt them.) Wearing your hiking boots, fit your pack with an average load and carefully load your pack with the weight close to your back just like you would for a trip. Walk around.*



**PROBLEM: Pressure at bottom of belt**  
Bend at lumbar pad top (X) to tuck the pad into the small of your back.

**PROBLEM: Pressure at top of back**  
Flatten the curve of the frame where it bows away from the back.

**PROBLEM: Gap at top of shoulder**  
Add curve to the frame and then bend back the top (X).

**PROBLEM: Need more headroom**  
Bend the frame away from the head (at X).



## Loading Your Pack

Loading the pack greatly affects your comfort—follow the guidelines below for optimum comfort.

*NOTE: If your pack feels like it's leaning away too much from your shoulders, you have a weight distribution problem.*

### Hints to keep you comfortable when out on the trail:

- When balance is crucial for off-trail travel, climbing, or skiing, pack heavy items centered and close to the back.
- The sleeping bag should always go in or on the bottom of the pack.
- Pack clothing and other light gear around heavy items (i.e., a stove or climbing gear) in order to keep them from shifting.
- Items you will need during the day should be packed in the top of the main compartment, the top pocket, or side pockets.
- Foam pads and odd-sized equipment (such as long tent poles) can be carried on the outside of the pack. Use the appropriate accessory patches, ice-axe loop, or ski slots for these items.
- Do not put heavy items like water bottles or climbing equipment in pockets located far from your back.

## Gear List

The following items are recommended, even for a minimalist.

<p><b>Clothing</b></p> <ul style="list-style-type: none"> <li>* Waterproof rain gear</li> <li>* Jacket</li> <li>* Pants (not cotton)</li> <li>* Core warmth items             <ul style="list-style-type: none"> <li>top (long sleeve)</li> <li>bottoms</li> <li>socks</li> </ul> </li> <li>* Insulation layers             <ul style="list-style-type: none"> <li>non-cotton socks</li> <li>fleece jacket</li> <li>shirts</li> <li>walking shorts</li> </ul> </li> </ul>	<p><b>First Aid Kit</b></p> <ul style="list-style-type: none"> <li>* Bandages</li> <li>* Tweezers</li> <li>* Gauze</li> <li>* Thread/needle</li> <li>* Whistle</li> <li>* Pain relievers</li> <li>* Moleskin</li> <li>* Cotton</li> <li>* Safety pins</li> <li>* Mirror</li> <li>* Razor blade</li> </ul>	<p><b>Misc. Items</b></p> <ul style="list-style-type: none"> <li>* Sunglasses</li> <li>* Bandanna</li> <li>* Headlamp/flashlight</li> <li>* Cordage</li> <li>* Pack raincover</li> <li>* Lashing straps</li> <li>* Resealable bags</li> <li>* Insect repellent</li> <li>* Sunscreen</li> <li>* Topo-maps/compass</li> <li>* Toilet paper</li> <li>* Camera/film</li> <li>* Lip balm</li> <li>* Biodegradable soap/shampoo</li> <li>* Toothbrush &amp; toothpaste</li> </ul>
<p><b>Basics</b></p> <ul style="list-style-type: none"> <li>* Tent or shelter</li> <li>* Sleeping bag</li> <li>* Water bottles</li> <li>* First-aid kit</li> <li>* Food</li> <li>* Hiking boots (waterproof)</li> </ul>	<p><b>Cookset</b></p> <ul style="list-style-type: none"> <li>* Stove/fuel</li> <li>* Cookware &amp; pot gripper</li> <li>* Multi-purpose tool</li> <li>* Cooking utensils</li> <li>* Waterproof lighter/matches</li> <li>* Water purifier</li> </ul>	<p><b>Winter Hiking Additions</b></p> <ul style="list-style-type: none"> <li>* Warm hat</li> <li>* Gloves</li> <li>* Polypropylene glove liner</li> <li>* Extra pair of wool/synthetic socks</li> <li>* Mukluks or booties</li> </ul>

Backpack Glossary

- "U" Zipper:** Shaped like the letter "U", this type of opening is found on some of our luggage and provides easy access to the entire contents of the bag.
- 2-layer padded shoulder straps and/or waistbelt:** Used where maximum support and straps and/or waistbelt: cushioning are required. We combine an EVA foam, which is compression resistant and known for its durability, with a PU open cell foam, which provides a contoured and cushioned fit.
- 3-layer padded ISO waistbelt:** Three-layer belt with a firm PlastiFoam back, EVA core, and reticulated foam against your body. Offers solid support and comfort.
- Adjustable-length shoulder straps:** If you have a longer torso, some of our packs allow you to adjust the length of the shoulder straps for a more comfortable and precise fit.
- Adjustable suspension:** To accommodate a variety of torso lengths, some packs feature shoulder straps and/or a hip belt that moves up and down on the pack frame. This allows you to fine-tune the fit.
- Airmesh belt:** Breathable, lightweight waistbelt.
- Attic CD player pocket:** Found in most of our daypacks, this pocket stows most CD and MP3 players high and out of the way from being crushed by heavy loads
- Belt stabilizer straps:** Located on the hip belt of some our backpacking packs, these two lateral straps help compress the hip belt and allow for load stabilization. A simple tug on these straps will help minimize the vertical float of the belt and the pack when ultimate stability is needed.
- Carry handle:** Usually located at the top or back of our packs, this is a simple way to grab your pack and pick it up.
- CD cord port:** This nifty little hole allows passage of cords for earphones or other electronics.
- Cell phone/PDA pouch:** A secure pocket that fits most cell phones and PDAs.
- Clevis pin:** Used to attach a packbag, waistbelt, or shoulder straps to Kelty external frame packs. They are made of a special heat-treated aluminum alloy. A clevis pin is a small metal peg used in external frame packs to anchor a strap to the frame or connect adjustable sections of frame. They are held in place by split rings.
- Daisy chain:** A "chain" of webbing that is attached to the front of many of our packs. This allows you to

easily lash or attach other items to the outside of your pack for easy access.

**Delrin arch support:**

A small diameter plastic rod that goes around the pack in an arch shape, hence the name "arch support". Commonly referred to as Delrin® this Acetal hoop is a useful replacement for metal in smaller packs and fanny packs.

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**Expandable main compartment:**

Some of our luggage features a zippered compartment that unzips to expand the overall capacity of the bag to accommodate the treasures from those shopping sprees while on vacation.

**File folder pocket:**

Found in some of our daypacks. This rigid "file cabinet" separates and stores papers away from the rest of the pack's contents, keeping them from getting rumpled

**Fleece-lined optics pocket:**

A pocket made of soft, scratch resistant material that conveniently and securely stores eyewear.

**Front panel access:**